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## CENTRAL INTELLIGENCE AGENCY

CLASSIFICATION

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SECURITY INFORMATION

50X1-HUM

## INFORMATION REPORT

REPORT

CD NO.

COUNTRY Czechoslovakia

DATE DISTR. 20 August 1952

SUBJECT New Diesel Engine

NO. OF PAGES 2

DATE OF INFO.

NO. OF ENCLS.  
(LISTED BELOW)

PLACE ACQUIRED

SUPPLEMENT TO REPORT NO. 50X1-HUM

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CIRCULATE

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THIS IS UNEVALUATED INFORMATION

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1. the motor described below is to be manufactured in a first series of 3,000 pieces for use in tanks.

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2. The motor is a 12-cylinder V-engine, with 6 cylinders in line on each side, mounted at an angle of 50 degrees to one another. All cast components are made of duraluminum. Cooling is by water under forced circulation.

Cylinder bore:	170
Piston stroke:	190 mm.
Total stroke volume:	51.8 liters
Compression ratio:	1 : 15.8
Medium effective pressure on pistons:	5.5 kg/ sq. cm.
Crude oil with lowest estimation limit of 10,000 cal/kg.	
Oil consumption:	3.6 g/hp/hour
Volume of water in engine:	65 liters
Volume of oil in engine:	40 kg.
Type of injection valves:	Do - 150 - S-825 - PAL.
Type of jet-supports:	VN-125 - S-140 - PAL
Type of injection pumps:	PVG Z 120 L 630 - PAL (1 piece)
	PVG Z 120 P 230 - PAL (1 piece)
	270 - 290 atm.
Opening pressure:	2 pieces FD 3 BLN - PAL
Type of fuel filters:	4 pieces HEFA Z 75
Type of air filters:	2 atm.
Operating oil-pressure:	2125 mm.
Overall length of motor:	1050 mm.
Overall width of motor:	1390 mm.
Overall height of motor:	
Weight:	So far not established

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3. The following data are reported for this motor:

N	N <sub>nom</sub>	Kg/k/h	Mk kgm	Np	k	Mk
800	261	164	232	282.5	168.3	252.1
900	297	161.8	235.4	323	165.2	255.9
1000	331	161	236	360	164.8	256.8
1100	361	162.1	233.9	393	166	254.8
1200	385	165.5	229.1	420.5	169.2	249.5
1300	403	171	222.1	442	174.5	242
1360	410	175	215.5	450	178.2	236.8

Explanation to the above abbreviations:

N - rotation per minute  
 Np - performance under overloading conditions  
 Nnom - Nominal performance  
 k - Specific consumption of crude oil  
 Mk - Torque effect on crankshaft.

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